

REMARKS

This paper is responsive to an *Official Action* that issued in this case on April 15, 2008. In that *Action*, the Examiner:

- Rejected claims 1, 3-9, 11-17, 21-23, 25, 27-31, and 34 under 35 USC §103 as being obvious over U.S. Pat. No. 2,704,897 to Lade in view of U.S. Pat. No. 6,398,557 to Hoballah.
- Rejected claims 2 and 20 under 35 USC §103 as being obvious over Lade in view of U.S. Pat. No. 4,134,218 to Adams.
- Rejected claims 18-19 and 24 under 35 USC §103 as being obvious over Lade and Hoballah in view of U.S. Pat. No. 6,470,302 to Cunningham *et al.*
- Rejected claim 26 under 35 USC §103 as being obvious over Lade and Hoballah in view of Adams.
- Indicated that claims 10, 32, and 33 would be allowable if rewritten to include the limitations of the base claim and any intervening claims.

Responsive to the Action and/or for clarity and convenience, claims 1-34 are hereby canceled, such that all of the originally pending claims 1-38 are now canceled. New claims 39-70 are hereby added. Reconsideration is respectfully requested in view of the foregoing amendments and the following comments.

New Claims 39-70

For the Examiner's convenience, Table I is provided below. Table I shows the correspondence between the new claims and the most recently pending claims. That is, Table I indicates which one or more of the previous claims form the basis for each new claim.

In some cases, there will be a one-to-one correspondence between the new claims and the old claims. In some other cases, the new claims might not incorporate all limitations of the previous claims.

Furthermore, to the extent that a dependent claim is identified as a basis for a new claim, *only* the limitations appearing in the dependent claim *proper* (i.e., not those from the base or any intervening claims) are being incorporated in the new claim.

NEW CLAIMS	CLAIMS AS THEY STOOD PRIOR TO THIS AMENDMENT	COMMENTS
39	1,4,10	
40	18	
41	19	
42	12	
43	13	
44	14	
45	15	
46	16	
47	27,32	
48	28	
49	30	
50	31	
51	33	
52	21,7,30	
53	22	
54	24	
55	25	
56	26	
57	1,6,7	Excludes limitation of generating a "force."
58	10	
59	9	
60	11	
61	1,5,9	Excludes limitation to the "force" being magnetic.
62	10	
63	6	
64	7	
65	-	Similar to claim 11; support at [0074], etc.
66	13	

67	14	
68	16	
69	17	
70	6,17	

Table I: Correspondence Between the New and Previous Claims

New Independent
Claims 39 and 47

The Examiner indicated that claims 10 and 32 would be allowable if rewritten in independent form including all the limitations of their respective base claims and any intervening claims.

Consistent therewith, new claim 39 incorporates the limitations of claim 10 as well as claims 4 and 1 upon which it depends. And new claim 47 incorporates the limitations of claim 32 as well as claim 27 upon which it depends.

As a consequence, it is believed that new claims 39 and 47 are allowable. Furthermore, claims 40 and 41, which are dependent on claim 39, are allowable. Likewise, claims 48-51, which are dependent on claim 47, are allowable. The recitation of additional patentable features in these dependent claims provides a secondary basis for their patentability.

New Independent Claims
42, 52, 57, and 61

These independent claims incorporate limitations from the previous claims, per Table I. It is believed that these claims are patentable over the art of record, as discussed further below.

Claim 42

New claim 42 recites, in pertinent part:

a palpation module for enabling a user to palpate a pseudo vein, wherein; ...
 (b) said palpation module generates a force that opposes downward motion of said pseudo vein; and
 (c) a magnitude of said force is substantially constant during application of said force.

In conjunction with previous claim 12, which included a limitation pertaining to the issue of the magnitude of the opposing force being constant, the Office argued that "the foam

rubber backing would generally create a constant opposition force, particularly when the applied force is constant.”

This is not correct. As one compresses foam rubber backing, or any type of backing for that matter, the force required for continued compression increases. In fact, depending upon the thickness of the foam, the type of foam, or the extent to which it is pre-compressed (“a layer of foam rubber **3** is fitted snugly around the bone and held by adhesive tape”), the force can increase quite dramatically. As a consequence, to the extent that a simulated vein overlies the foam, as in Lade, the force required for compression will increase.

Since neither Lade nor any other art of record discloses or even suggests this feature, new claim 42 is allowable over such art. New claims 43-46, which are dependent on claim 42, are likewise allowable. The recitation of additional patentable features in these dependent claims provides a secondary basis for their patentability.

Claim 52

New claim 52 recites, in pertinent part:

<p>a rigid housing; a first opening and a second opening in the housing; and a palpation module for enabling a user to palpate a pseudo vein, wherein the palpation module: (a) comprises a rigid pseudo vein; (b) is disposed within the housing beneath the first opening; (c) generates a magnetic force that opposes downward motion of the pseudo vein; (d) is operable to vary a simulated stiffness of the rigid pseudo vein.</p>
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Among any other limitations of claim 52, none of the references, either alone or in combination, disclose (or even suggest) that a palpation module includes a “rigid pseudo vein” yet, at the same time, is operable to “vary a simulated stiffness” of that vein.

In conjunction with previous claims 6 and 30, which recite a limitation pertaining to the pseudo vein being “rigid,” the Office alleged that Lade’s vein is “at least partially rigid, as it is a rubber or latex material.” Applicant’s claims recite “rigid.” Rigid means “not flexible” or “not pliant.” Therefore, something is either “rigid” or “not rigid.” The pseudo vein cannot be “partially rigid.” The specification discloses that “[i]n the illustrative embodiment,

pseudo vein **446** is a mock vein. It comprises a solid material, such as aluminum, hard plastic, *etc.*”

It is notable that, with regard to previous claims 3 and 7, the Office argued that Lade discloses that “the vein can be filled with fluid, which could effectively create varying stiffness levels (engorgement) by varying the fluid level in the vein.” Well, that is true only if the pseudo vein *not* rigid.

Even though the pseudo vein of claim 52 is rigid, the palpation module recited in that claim is able to vary a *simulated* stiffness of the vein. No reference discloses or even suggests that combination of features.

Since neither Lade nor any other art of record discloses or even suggests this feature, new claim 52 is allowable over such art. New claims 53-56, which are dependent on claim 52, are likewise allowable. The recitation of additional patentable features in these dependent claims provides a secondary basis for their patentability.

Claim 57

New claim 57 recites, in pertinent part, an apparatus comprising:

pseudo skin; and
a palpation module for enabling a user to palpate a pseudo vein, wherein said palpation module:
(a) is disposed beneath said pseudo skin;
(b) comprises a rigid pseudo vein that moves downward in response to applied pressure by the user; and
(c) is operable to vary a simulated stiffness of the rigid pseudo vein.

Like new claim 52, new claim 57 recites limitations pertaining to a “rigid” pseudo vein and the ability to “vary of simulated stiffness” of the pseudo vein. These features are not disclosed or suggested by the art of record.

As a consequence, claim 57 is allowable over the cited art. Claims 58-60, which are dependent on claim 57, are likewise allowable. The recitation of additional patentable features in these dependent claims provides a secondary basis for their patentability.

Claim 61

New claim 61 recites, in pertinent part, an apparatus comprising:

pseudo skin; and

a palpation module for enabling a user to palpate a pseudo vein, wherein said palpation module:

- (a) is disposed beneath the pseudo skin;
- (b) comprises a pseudo vein that moves downward in response to applied pressure;
- (c) generates a force that opposes downward motion of the pseudo vein; and
- (d) the palpation module controllably obscures the pseudo vein under the pseudo skin such that the pseudo vein can be felt, or not felt, as desired.

The cited art does not disclose or suggest what is recited in new claim 61. In particular, and in conjunction with other limitations of the claim, the cited art does not disclose a palpation module that “controllably obscures” the pseudo vein under the pseudo skin so that the pseudo vein can either be felt or not be felt, as desired.

This is explained at paras. [0078] and [0079] of applicant’s specification:

[0078] When, according to the simulation, a vein should not be present, pseudo vein **446** retracts to a position that is substantially flush with the upper surface of upper plate **438** (see, FIG. 4E). This is accomplished by reducing current to coils **450**, or by simply completely de-energizing the coils, which causes the lower plate **444** to drop away from upper plate **438**. The same result obtains when pseudo vein **446** is palpated (*i.e.*, pressed) with “too” much force by a user.

[0079] In this retracted position, pseudo vein **446** is not tactilely discernable by a user that is attempting a palpation procedure in palpation/occlusion region **331**. By virtue of this structural configuration, pseudo vein **446** is flush with the surface of upper plate **438** when the pseudo vein retracts. As a consequence, vein-receiving slot **440** cannot be felt by a user. This is desirable, since vein-receiving slot **440** is not analogous to any anatomical structure within the body.

Thus, when a vein should be present, it can be felt (but not seen) under the pseudo skin. When the pseudo vein ought not to be present, it can be “obscured,” as discloses in the excerpt.

Since this and other claimed limitations are not disclosed or suggested in the cited art, claim 61 is allowable thereover. Claims 62-70, which are dependent on claim 61, are likewise allowable. The recitation of additional patentable features in these dependent claims provides a secondary basis for their patentability.

Conclusion

It is believed that new claims 39-70 now presented for examination are allowable over the art of record. A notice to that effect is therefore requested.

Respectfully,
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